

UPCOMING MOBILE PAYMENT IN ELECTRONIC PAYMENT SYSTEM IN RETAIL STORES IN THE COIMBATORE DISTRICT

Mr. J. S. Mohana Krishna*
Dr. B. Thayumanavar**

ABSTRACT

A place of business is usually owned and operated by a shop but occasionally owned and functioned by a builder or by somebody other than a seller in which the product is sold principally to final customers. Electronic retail payment has been intended to help separate customers and corporations themselves in eliminating or plummeting approximately the glitches inherent in the settlement and payment process. Retail payments are characteristically expenditures between consumers, businesses, and community authorities. They can be usual buyer dealings. Mobile payment is a method of gainful that holds a portable expedient such as a mobile phone, a smart watch. These strategies capacity run portable folder apps or peer-to-peer mobile imbursement apps. The main aim of the study is socio-demographic factors that affect user attitudes toward Mobile Payment and their types of retail stores. To identify the Usage of Electronic Payment Methods by Customers and the benefits of mobile payments. To overcome the Challenges in Mobile Payments by the users in the stores.

Keywords: Mobile, Payments, Digital, Smart Watch, Consumer.

Introduction

A trade store is a business initiative whose primary source of selling originates from transactions. Retailing contains all the actions involved in trade goods or facilities straight to the ending buyer for particular, non-business use – Philip Kotler. The success of new electronic banking services is not only a problem of technical feasibility but also a problem of marketing and promotion efforts. This study borrows the perceived risk model from consumer behaviour and uses it as an evaluation method for new electronic banking services Simon et al (1994). Mobile payment system, in line with Shon & Swatman's definition of an internet payment system Shon and Swatman (1997). The tendency of cardinal payments has increased rapidly in current years with the growth of the Cyberspace due to the easy user-friendliness of Internet usage.

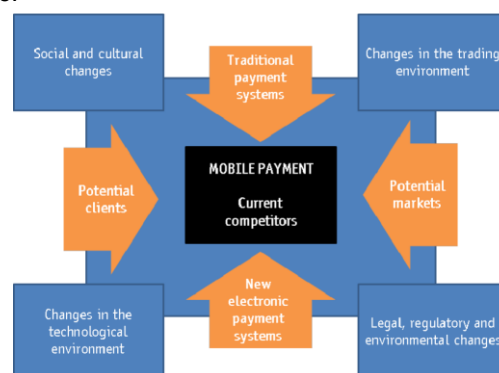


Figure 1: The Importance of Mobile Payment

- * Ph.D. (Part-Time) Research Scholar, Department of Management Studies, Sree Saraswathi Thyagaraja College (Autonomous), (Affiliated to Bharathiar University), Pollachi, Tamil Nadu State, India.
- ** Associate Professor, Department of Management Studies, Sree Saraswathi Thyagaraja College (Autonomous), (Affiliated to Bharathiar University), Pollachi, Tamil Nadu State, India.

Review of Literature and Research Gap

• Payment Systems- Mobile

Payment is useful for businesses who are scheduling to adopt Zon-Yau (2001) to devote research and development into an automated payment system, Van der Heijden (2002) aspects affecting the outline of internet payment organizations to a moveable setting, both client and commercial getting is extremely interdependent as each influences the other, especially during the early stages.

Hsiao-Cheng (2002) Systematic and full assessments of substitute classifications are provided mobile payment marketplace is a theme to many hypothetical circumstances, two possible disruptions in the moveable reimbursement market Ondrus & Pigneur (2005)

Successful operation of these systems depends on the cooperation of a number of stakeholders including consumers, wholesalers, economic establishments, and substructure earners Sangjo (2006) benefits and costs of the system to these stakeholders.

Several dimensions – in choice of hardware/software platform, Agarwal et al (2007) in technology and in cell phone operating systems. A valuation of Near Field Communication for upcoming transportable payment systems. Ondrus, & Pigneur (2007) more specifically for mobile payments, systematic manner the potential of NFC as an upcoming technology for mobile payments.

Mallat & Tuunainen (2008) main adoption drivers are related to the means of increasing sales or reducing the costs of payment processing, Tacchi (2008) mobile phone is a powerful consumer communication tool, and its use is constantly evolving device for sending text messages, e-mailing, and using personal (e.g., calendar) or entertainment services (eg taking pictures, listening to music). This will transform the mobile phone into a secure transactional device, working like a contactless card in a vending or point-of-sale environment, and offering payment, e-coupon, and e-ticket services. European consumers will easily adopt these new capabilities.

Sumanjeet (2009) difference between each electronic payment system by appraising their necessities, and characteristics and assessing the applicability of each system, advanced mobile payment society based on 2-D Gao et al (2009) mobile phone Weber & Darbellay (2010) Contingent on the dissimilar functionalities of mobile payments projected by Innopay (2013), mobile payments can be classified to the type of facility, the technology used Niklas Arvidsson (2014) understand consumers' attitudes on start using mobile payment services.

Regarding the condition of portable reimbursement organizations from the dealers' perspective, shown by the Spanish National Observatory of Telecommunications and Info Society ONTSI, (2015). Kapoor, Dwivedi & Williams (2015) role of three sets of innovation attributes for determining the adoption of the interbank mobile payment service IMPS; charge and interactive intention suggestively foretold the acceptance of IMPS; lastly, observability, twin, discernibility, and perilousness were originated to be the irrelevant adoption attributes for IMPS.

Apanasevic, Markendahl, and Arvidsson (2016) slow implementation of transportable payment services and acceptance of mobile payment systems on social networks Liébana-Cabanillas (2017) In order to explain acceptance have combined belief and apparent risk in the outdated TAM model. Khan et al (2017) numerous online reimbursement system services, connected safety matters, and various factors affect the adoption of online payment systems by consumers.

Implementation of mobile imbursement arrangements from the point of view and perspective of the Liébana-Cabanillas, & Lara-Rubio (2017) merchants' main factors influencing the embracing of mobile payment systems approaching a methodology involving mobile payments technologies and what is motivating them. While magnetic strip technology is being replaced, other technologies are vying for acceptance in the retail arena. Jeffus, Zeltmann, Griffin & Chen (2017) there are pros and cons to each service, but one format appears to be taking hold of the marketplace.

Consumer perception toward digital wallets has found that the study was accomplished to explore consumer awareness, perceptions, and willingness to use digital wallets. Akhila (awareness, usage, and the likelihood of means of smart phones for completing monetary transactions. The increased penetration of internet connectivity and smart phones has the number of digital wallet users.

Leng, Talib & Gunardi (2018) change payment methods in financial services, particularly those involving mobile payments that can create new channels for consumers to acquire goods and facilities using mobile phones. Luna et al (2018) factors that regulate buyer reception of Short Message Service, NFC, and QR mobile payment systems, in addition to determining the principal factors which influence the adoption of these mobile payment systems as means of payment.

Liao & Yang (2020) Mobile payments are services that use mobile devices to make payments. Tripathi (2020) and data about aspects that played a role as a barrier during the practice of the mobile payment request, investigated users assessments of the explicit attributes of the services. Choi, Park, Kim & Jung (2020) their preference structure was generated from a conjoint analysis including five service attributes.

- **Research Gap**

Hsiao-Cheng (2002) planning to adopt or to improve an automated imbursement system, Previous research comparing the existing payment technologies Ondrus (2006 and 2007) Several studies have tried to establish whether age can be considered a determining factor in consumer attitude and behavior, by analyzing aspects such as self-perusing and automatic debiting, connected amenities Weijters et al. (2007); Phang et al. (2006), trust, flow, and satisfaction determine the Agarwal et al (2007) future mobile worms can severely compromise the security of transacting payments through a cell phone. Zhou (2013) continuation of the purpose to use mobile payments.

Objectives

- To examine how socio-demographic factors affect user attitudes toward Mobile Payment and their types of retail stores.
- To identify the Usage of Electronic Payment Methods by Customers and the benefits of mobile payments.
- To overcome the Challenges in Mobile Payments by the users in the stores.

Research Methodology

Respondents were selected from different Taluks of the Coimbatore district. This study was conducted by proportionate sampling methods. The data for the Study was gathered through a structured questionnaire. There were 135 respondents in this research study. A total of 135 mobile payment users from various corners of India filled out the Questionnaire created with the help of Google forms. Various questions are asked to them to analyze their perception of the use of Mobile Payment Applications.

Analysis

- **Percentage Analysis**

Table 1 represents the social-economic outline of the respondents; Male was highly using the e-payments. All age group people are using mobile payment applications, and a huge number of age people is 40-49 years. Post Graduate people are 31 percent of using. Rs.30,001 – Rs.49,000 this level of income people are using a high percentage of digital payments. Mobile Payment Applications users are 98 percent. Electronic Payment Methods by Customers was e-payments are high.

Table 1: Demographic Profile of the Respondents

Category	Classifications	Frequency	Percent
Gender	Male	71	52.6
	Female	64	47.4
Age	19-29 Years	35	25.9
	30-39 Years	21	15.6
	40-49 Years	46	34.1
	50-59 Years	10	7.4
	Above 60	23	17.0
Education Qualification	Literate	33	24.4
	Secondary and Higher Secondary School	22	16.3
	Under Graduate	38	28.1
	Post Graduate	42	31.1
Income	Below Rs.10,000	5	3.7
	Rs.10,001- Rs. 30,000	2	1.5
	Rs.30,001 – Rs.49,000	101	74.8
	Above Rs.50,000	27	20.0
Marital Status	Single	59	43.7
	Married	52	38.5
	Separate	24	17.8

Are you using Mobile Payment Applications	Yes	132	97.8
	No	3	2.2
Retail store classifications	Store retailers	39	28.9
	Non-store retailers	35	25.9
	Retail organizations	61	45.2
Usage of Electronic Payment Methods by Customers	Once a day	24	17.8
	Twice in week	48	35.6
	Only using E-Payments	63	46.7

- **Cross-Tabulation**

- R1-Specialty store
- R2-Department store
- R3-Supermarket
- R4-**Convenience store**
- R5-**Discount store**
- R6-Off-price retailer
- R7-Hypermarket

Table 2: Gender * Different Types of Retail Stores

		Different types of retail stores							Total
		R1	R2	R3	R4	R5	R6	R7	
Gender	Male	17	6	22	11	5	3	7	71
	Female	10	19	21	4	6	4	0	64
Total		27	25	43	15	11	7	7	135

	Value	DF	Asymptotic Significance (2-sided)
Pearson Chi-square	18.786 ^a	6	.005
Likelihood Ratio	21.935	6	.001
Linear-by-Linear Association	2.226	1	.136
Number of Valid Cases	135		

There is no momentous modification between Gender and the Different types of retail stores, P-Value is 0.005. So that, proposition is rejected.

Table 3: Mobile Payment Applications and Age of the Respondents

		Are you using Mobile payment Applications		Total
		Yes	No	
Age	19-29 Years	35	0	35
	30-39 Years	18	3	21
	40-49 Years	46	0	46
	50-59 Years	10	0	10
	Above 60 Years	23	0	23
Total		132	3	135

	Value	DF	Asymptotic Significance (2-sided)
Pearson Chi-square	16.656 ^a	4	.002
Likelihood Ratio	11.548	4	.021
Linear-by-Linear Association	.888	1	.346
Number of Valid Cases	135		

Using Mobile Payment Applications and the age of the respondents, the sig value is .002, at the supposition is rejected.

ANOVA

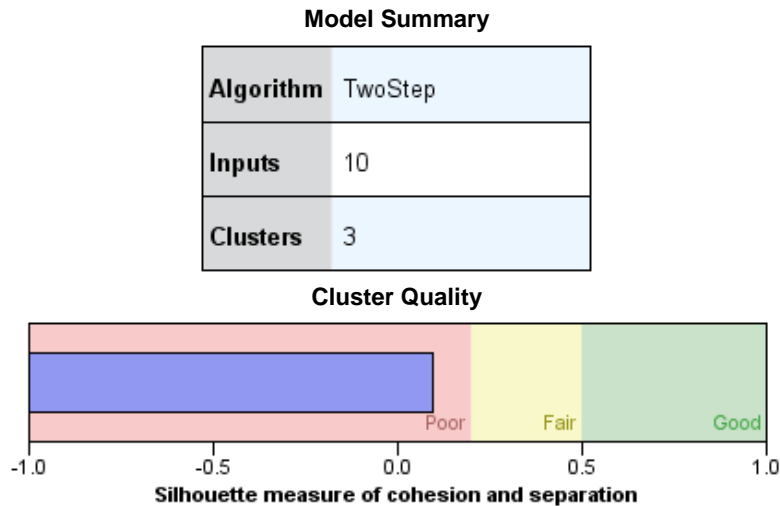
Table 4: Association between the Age of the Respondents and the Benefits of Mobile Payments

ANOVA						
Benefits of Mobile Payments		Sum of Squares	DF	Mean Square	F	Sig.
Mobile payments are Convenient	Between Groups	26.827	4	6.707	4.129	.004
	Within Groups	211.144	130	1.624		
	Total	237.970	134			
Security	Between Groups	10.839	4	2.710	2.807	.028
	Within Groups	125.487	130	.965		
	Total	136.326	134			
Variable payment modes	Between Groups	2.954	4	.739	1.819	.129
	Within Groups	52.779	130	.406		
	Total	55.733	134			
Time-efficiency	Between Groups	4.608	4	1.152	5.389	.000
	Within Groups	27.792	130	.214		
	Total	32.400	134			
Pay whenever, wherever	Between Groups	10.038	4	2.509	2.186	.074
	Within Groups	149.222	130	1.148		
	Total	159.259	134			
Ease of paying	Between Groups	2.933	4	.733	3.094	.018
	Within Groups	30.801	130	.237		
	Total	33.733	134			
Management of expenses	Between Groups	3.069	4	.767	1.120	.350
	Within Groups	89.034	130	.685		
	Total	92.104	134			
Deals and offers	Between Groups	16.874	4	4.219	2.688	.034
	Within Groups	204.059	130	1.570		
	Total	220.933	134			

There is no momentous difference between the age of the respondents and the benefits of mobile payments, the factors are Mobile payments are Convenient, Security, Variable payment modes, Time-efficiency, pay whenever, wherever, Easy of paying, Management of expenses, Deals, and offers. Management of expenses, Pay whenever, wherever, and Variable payment modes these three variables have accepted the hypothesis.

Two-Step Cluster

Figure 2: Challenges in Mobile Payments and Different Types of Stores



- **Correlations**
 - P1- Cash
 - P2- Cheque
 - P3- Credit Card
 - P4-Debit Card
 - P5- Telephone
 - P6- Banking PC Banking
 - P7- Internet Banking
 - Significant-Sig. (2-tailed)

Table 5: Relationship between the between Gender and the Payments Methods of the Respondents

Correlations									
		P1	P2	P3	P4	P5	P6	P7	Gender
P1	Pearson Correlation	1							
	Sig.								
P2	Pearson Correlation	.477**	1						
	Sig.	.000							
P3	Pearson Correlation	.254**	.297**	1					
	Sig.	.003	.000						
P4	Pearson Correlation	.062	.035	.210 [*]	1				
	Sig.	.473	.683	.015					
P5	Pearson Correlation	.181 [*]	.095	.158	.102	1			
	Sig.	.036	.273	.067	.239				
P6	Pearson Correlation	-.001	-.034	.038	.083	.030	1		
	Sig.	.989	.696	.661	.341	.728			
P7	Pearson Correlation	-.008	-.122	-.126	.011	-.086	.200 [*]	1	
	Sig.	.924	.157	.144	.902	.321	.020		
Gender	Pearson Correlation	.096	.068	.159	.072	.252**	-.055	.024	1
	Sig.	.268	.432	.066	.404	.003	.525	.785	

Suggestions and Conclusions

The main contribution of this paper is in addressing upcoming mobile payment in automated compensation systems in retail stores' organizational acceptance of innovation, which is insufficiently addressed by previously implemented research in the mobile payment and retailing domains. Another contribution is an estimation of the main drivers and obstacles for retailers to accept mobile payment services. Finally, the paper grants an investigation and explanation of current mobile payment bazaar movements associated with results pragmatic for retail in the Coimbatore district. The findings of the explorer high points that receiving a mobile payment facility depends on the ability of mobile payment earners to build networks of both retailers and consumers simultaneously. The upcoming electronic payments contain biometrics, contactless cards, and wearable technology.

References

1. Agarwal, S., Khapra, M., Menezes, B., & Uchat, N. (2007). Security issues in mobile payment systems. *Proceedings of ICEG*, 142-152.
2. Akhila Pai, H. (2018). Study on consumer perception towards digital wallets. *International Journal of Research and Analytical Reviews*, 5(3), 385-391.
3. Apanasevic, T., Markendahl, J. and Arvidsson, N. (2016), "Stakeholders expectations of mobile payment in retail: lessons from Sweden", *International Journal of Bank Marketing*, 34 (1), 37-61. <https://doi.org/10.1108/IJBM-06-2014-0064>
4. Arvidsson, N. (2014), "Consumer attitudes on mobile payment services – results from a proof of concept test", *International Journal of Bank Marketing*, 32(2), 150-170. <https://doi.org/10.1108/IJBM-05-2013-0048>

5. Choi, H., Park, J., Kim, J., & Jung, Y. (2020). Consumer preferences of attributes of mobile payment services in South Korea. *Telematics and Informatics*, 101397, 10.1016/j.tele.2020.101397
6. De Luna, I. R., Liébana-Cabanillas, F., Sánchez-Fernández, J., & Muñoz-Leiva, F. (2018). Mobile payment is not all the same: The adoption of mobile payment systems depends on the technology applied. *Technological Forecasting and Social Change*.10.1016/j.techfore.2018.09.01
7. Gao, J., Kulkarni, V., Ranavat, H., Chang, L., & Mei, H. (2009). A2D Barcode-Based Mobile Payment System. *Third International Conference on Multimedia and Ubiquitous Engineering*, 320-329, 978-0-7695-3658-3/09, 10.1109/mue.2009.62
8. Hsiao-Cheng Yu, Kuo-Hua His, Pei-Jen Kuo (2002). Electronic payment systems: an analysis and comparison of types. *Technology in Society*, 24(3), 331–347. doi:10.1016/s0160-791x(02)00012-x
9. Innopay (2013). Mobile payments 2013—changing checkout. http://www.innopay.com/system/files/private/Mobile%20payments%202013_Innopay_v1.0.pdf .
10. Jeffus, B., Zeltmann, S., Griffin, K., & Chen, A. (2017). The future of mobile electronic payments. *Journal of Competitiveness Studies*, 25(3/4), 216-222.
11. Kapoor, K. K., Dwivedi, Y. K., & Williams, M. D. (2015). Examining the role of three sets of innovation attributes for determining adoption of the interbank mobile payment service. *Information Systems Frontiers*, 17, 1039-1056.
12. Khan, B. U. I., Olanrewaju, R. F., Baba, A. M., Langoo, A. A., & Assad, S. (2017). A compendious study of online payment systems: Past developments, present impact, and future considerations. *International journal of advanced computer science and applications*, 8(5).
13. Khan, B. U. I., Olanrewaju, R. F., Baba, A. M., Langoo, A. A., & Assad, S. (2017). A compendious study of online payment systems: Past developments, present impact, and future considerations. *International journal of advanced computer science and applications*, 8(5).
14. Leng, S. Y., Talib, A., & Gunardi, A. (2018). Financial technologies: A note on mobile payment. *JurnalKeuangan Dan Perbankan*, 22(1), 51-62.
15. Liao, S.-H., & Yang, L.-L. (2020). Mobile payment and online to offline retail business models. *Journal of Retailing and Consumer Services*, 57, 102230, 10.1016/j.jretconser.2020.102
16. Liébana-Cabanillas, F., & Lara-Rubio, J. (2017). Predictive and explanatory modeling regarding adoption of mobile payment systems. *Technological Forecasting and Social Change*, 120, 32–40, 10.1016/j.techfore.2017.04.00
17. Liébana-Cabanillas, F., Muñoz-Leiva, F., & Sánchez-Fernández, J. (2017). A global approach to the analysis of user behavior in mobile payment systems in the new electronic environment. *Service Business*, 12(1), 25–64, 10.1007/s11628-017-0336-7
18. Liébana-Cabanillas, F., Ramos de Luna, I., & Montoro-Ríos, F. (2017). Intention to use new mobile payment systems: a comparative analysis of SMS and NFC payments. *Economic research-Ekonomskaistraživanja*, 30(1), 892-910.
19. Mallat, & Tuunainen. (2008). Exploring Merchant Adoption of Mobile Payment Systems: An Empirical Study. *e-Service Journal*, 6(2), 24-57, 10.2979/esj.2008.6.2.24
20. Ondrus J. and Y. Pigneur (2006). A multi-stakeholder multi-criteria assessment framework of mobile payments: An illustration with the Swiss public transportation industry. *The 39th Annual Hawaii International Conference on System Sciences (HICSS)*.
21. Ondrus J. & Y. Pigneur (2006). Towards a holistic analysis of mobile payments: A multiple perspectives approach. *Electronic Commerce Research and Applications*, 5(3): 246–257.
22. Ondrus J. and Y. Pigneur (2007). Cross-industry preferences for mobile payments development in Switzerland. *Electronic Markets*, 17(2), 9-12.
23. Ondrus, J., & Pigneur, Y. (2007). An Assessment of NFC for Future Mobile Payment Systems. *International Conference on the Management of Mobile Business (ICMB 2007)*, 10.1109/icmb.2007.9

24. Ondrus, J., & Pigneur, Y. (n.d.). A Disruption Analysis in the Mobile Payment Market. Proceedings of the 38th Annual Hawaii International Conference on System Sciences, 1-10, 10.1109/hicss.2005.9
25. ONTSI, (2015). Indicadoresdestacados de la sociedad de la información. Observatorio Nacional de las Telecomunicaciones y de la Sociedad de la Información, http://www.ontsi.red.es/ontsi/sites/default/files/indicadores_destacados_julio_2015.pdf
26. Phang, C. W., Sutanto, J., Kankanhalli, A., Li, Y., Tan, B. C., & Teo, H. H. (2006). Senior citizens' acceptance of information systems: A study in the context of e-government services. *IEEE transactions on engineering management*, 53(4), 555-569.
27. Sangjo Oh. (2006). A Stakeholder Perspective on Successful Electronic Payment Systems Diffusion. Proceedings of the 39th Annual Hawaii International Conference on System Sciences (HICSS'06), 10.1109/hicss.2006.31
28. Shon, T. H., & Swatman, P. M. (1997, April). Effectiveness criteria for internet payment systems. In First pacific-Asia workshop on electronic commerce, Brisbane, Australia. 7-18
29. Simon S.M. Ho and Victor T.F. Ng (1994), "Customers' Risk Perceptions of Electronic Payment Systems", *International Journal of Bank Marketing*, 12(8), 26-38. <https://doi.org/10.1108/02652329410069029>
30. Sumanjeet, S. (2009). Emergence of payment systems in the age of electronic commerce: The state of art. *Global Journal of International Business Research*, 2(2), 11-22.
31. Tacchi, S. (2008). Mobile payments challenges and opportunities in retail banking. *Journal of Payments Strategy & Systems*, 2(2), 159-166.
32. Thakur, R., & Srivastava, M. (2013). Customer usage intention of mobile commerce in India: an empirical study. *Journal of Indian Business Research*, 5(1), 52-72.
33. Tripathi, S. (2020). A study on adoption of digital payment through mobile payment application with reference to Gujarat state. *International Journal of Trend in Scientific Research and Development*, 4(3), 1110- 1115.
34. Van der Heijden, H. (2002). Factors affecting the successful introduction of mobile payment systems. *BLED 2002 proceedings*, 20.
35. Weber, R. H., & Darbellay, A. (2010). Legal issues in mobile banking. *Journal of Banking Regulation*, 11, 129-145.
36. Weijters, B., Rangarajan, D., Falk, T., & Schillewaert, N. (2007). Determinants and outcomes of customers' use of self-service technology in a retail setting. *Journal of Service Research*, 10(1), 3-21.
37. Zhou, T. (2013). An empirical examination of continuance intention of mobile payment services. *Decision support systems*, 54(2), 1085-1091.
38. Zon-Yau Lee, Hsiao-Cheng Yu, & Pei-Jen Ku. (n.d.). An analysis and comparison of different types of electronic payment systems. PICMET '01. Portland International Conference on Management of Engineering and Technology. Proceedings, Vol.1: Book of Summaries, IEEE Cat. No.01CH37199, 10.1109/picmet.2001.952002
39. https://www.researchgate.net/figure/The-importance-of-the-mobile-payment_fig3_290795449
40. <https://accountlearning.com/retail-store-meaning-types-of-retail-stores/>
41. <https://www.lyra.com/in/consumer-benefits-of-mobile-payments/>
42. [https //account learning com/characteristics of retailing/.](https://accountlearning.com/characteristics-of-retailing/)

